#### Case 3:10-cv-03561-WHA Document 1603 Filed 04/06/16 Page 1 of 12 **KEKER & VAN NEST LLP** 1 ROBERT A. VAN NEST - # 84065 2 rvannest@kvn.com CHRISTA M. ANDERSON - # 184325 3 canderson@kvn.com DANIEL PURCELL - # 191424 dpurcell@kvn.com 4 633 Battery Street San Francisco, CA 94111-1809 5 (415) 391-5400 Telephone: 6 Facsimile: (415) 397-7188 7 KING & SPALDING LLP BRUCE W. BABER (pro hac vice) 8 bbaber@kslaw.com 1185 Avenue of the Americas 9 New York, NY 10036 Telephone: (212) 556-2100 Facsimile: (212) 556-2222 10 Attorneys for Defendant 11 GOOGLE INC. 12 UNITED STATES DISTRICT COURT 13 NORTHERN DISTRICT OF CALIFORNIA 14 SAN FRANCISCO DIVISION 15 ORACLE AMERICA, INC., Case No. 3:10-cv-03561 WHA 16 17 Plaintiffs, GOOGLE'S OPPOSITION TO ORACLE'S **MOTION IN LIMINE #1 – TO EXCLUDE** EVIDENCE OF OPENJDK INCLUDING 18 v. EXPERT TESTIMONY THEREOF 19 GOOGLE INC., Hearing: April 27, 2016 Defendant. Time: 8:00 a.m. 20 Courtroom 8, 19<sup>th</sup> Fl. Dept. Judge: Hon. William Alsup 21 22 23 24 25 26

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#### I. INTRODUCTION

Oracle accuses Google of relying on an improper counterfactual, yet seeks to rewrite history to keep the jury from learning that in 2007, Sun published an open-source version of the Java SE platform called OpenJDK. The open source and royalty-free release of OpenJDK was part of Sun's broader business strategy to encourage developers to use the Java APIs and Java language, while competing on implementations. The OpenJDK license places no limits on licensees' ability to subset or superset the Java APIs—the very purported harm that Oracle made the centerpiece of its case in the first trial. Reporter's Transcript of 2012 Trial ("Tr.") at 218:6-9 (Oracle's opening statement: "So we talk about splintering Java or fragmenting Java. [Google] broke the basic set of rules governing the Java community. If you're going to do Java, you have to do all of it. You have to be consistent."). Despite its claim that Java is harmed when used in a way that is not "consistent" with standard Java, Oracle now seeks to exclude evidence that Sun itself invited precisely this alleged "harm" by open sourcing OpenJDK on terms that allowed licensees to "splinter" and "fragment" Java. Oracle argues that OpenJDK cannot support a finding of fair use, and claims that the evidence shows that Google would not have incorporated OpenJDK in Android in 2007. Neither contention has merit.

First, Sun's decision to release Java SE as free and open source is highly relevant to fair use. Sun's open-sourcing of OpenJDK is relevant to determining what uses a reasonable copyright owner would have consented to at the time, to its status as not just a published work, but one for which the *source code* was published, and to whether Sun's own actions, rather than Google's use, is the source of the purported harm to Java SE. OpenJDK is thus relevant to the balancing of all of the factors, as well as to the second and fourth fair use factors.

Second, Oracle mischaracterizes the evidence relating to OpenJDK. Oracle argues that Google rejected the OpenJDK license, but cites evidence pertaining to the OpenJDK *virtual machine*, and to the Java *ME* (not SE) class libraries, which are licensed under the GNU General Public License version 2 (hereinafter, the "GPL2" license). The OpenJDK class libraries, however, are licensed under a modified version of the GPL2 license—one that includes the "Classpath exception" that restricts the "copyleft" or "viral" effect of the GPL2 license (the GPL2

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license with the Classpath exception is hereinafter referred to as the "Classpath" license). Evidence concerning the GPL2 license thus has no bearing on whether Google could have used

the OpenJDK class libraries, which are subject to the Classpath license, in Android.

In short, Oracle is wrong about the law, and wrong about the facts. Oracle's motion should be denied.

#### II. STATEMENT OF FACTS

In December 2006, Oracle announced that it would be releasing versions of Java ME and Java SE under open source licenses. The OpenJDK virtual machine would be (and now is) licensed under the GPL2 license. The OpenJDK class libraries, which include all of the declarations/SSO at issue in this case, would be (and now are) licensed under the Classpath license. Id. Contrary to Oracle's suggestions, these licenses are very different. Due to what sometimes is called the "copyleft" or "viral" effect of the GPL2 license, if a licensee distributes an executable program created by combining GPL2-licensed code with its own code, the licensee generally must distribute the source code for the entire executable under the GPL2 license including the source code for any additions the licensee may have made. "Linking" independent software modules with GPL2-licensed code creates a "combined work," which would trigger copyleft obligations under the GPL2 license. But under an express "special exception" called the "Classpath exception," the Classpath license allows such combinations "regardless of the license terms of these independent modules," and allows the resulting executable to be distributed "under terms of [the licensee's] choice."

The Classpath license thus does not impose the same copyleft obligations that the GPL2 license does. Sun's FAQ about its Open Source versions of Java explained that the Classpath

https://web.archive.org/web/20061208025437/http://www.sun.com/2006-1113/feature/story.jsp.

http://openjdk.java.net/faq/ ("GPL v2 for almost all of the virtual machine, and GPL v2 + the Classpath exception for the class libraries and those parts of the virtual machine that expose public APIs.").

See ECF 1566-2 (Hall Rpt.) at 70 (GPL2 § 3); see also id. ¶¶ 19-20 (explaining "copyleft").

See id. at 74 (Classpath exception); see also id. at 70 (GPL2 § 3).

See id. at 74 (Classpath exception).

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exception "allows you to link an application available under any license" to the Classpath-
licensed library "without that application being subject to the GPL's requirement to be itself
offered to the public under the GPL." Sun recognized that this could result in "forks" of the Java
SE platform—and explained that it "expect[ed] great new ideas and valuable research to come
from forks to the platform." Id. Sun knew that a licensee could "create an implementation that
isn't compatible with the Java specification," although they could not "label that implementation
with the Java Compatible or Java Powered brand and logo." Id. Bradley Kuhn, who is on the
board of the Free Software Foundation (the author of the GPL2 and Classpath licenses), has
called the Classpath license an "extremely weak copyleft" license, and recalls that when the
Classpath license was named, he initially proposed calling it "the 'Least GPL' since the Classpath
exception carves so many holes in strong copyleft that it's less of a copyleft than even the Lesser
GPL and probably the Mozilla Public License, too!" (Google hereinafter refers to the "Lesser
GPL" license as the "LGPL" license.)

Android is also licensed on open source terms, but its primary open source license is a different license, called the Apache 2.0 license. Android includes (and has always included) elements covered by other licenses, including the Linux kernel, which is licensed under the GPL2 license, and other components that are licensed under the LGPL license. Code in Android that is licensed under the GPL and LGPL licenses has not kept OEMs from adopting Android.

Although Android has historically used the class libraries originating with the Apache Harmony project (hereinafter the "Harmony" libraries), on November 12, 2015—more than a month before the close of fact discovery—Google announced in a company-internal email that it was "moving the Java Language core libraries to an OpenJDK-based approach in the N release of Android." On that day, Google served supplemental interrogatory responses disclosing this

Mullen Decl. Ex. 1. <a href="https://web.archive.org/web/20061201003425/http://www.sun.com/software/opensource/java/faq.jsp">https://web.archive.org/web/20061201003425/http://www.sun.com/software/opensource/java/faq.jsp</a> (emphasis added).

http://ebb.org/bkuhn/blog/2016/01/05/jdk-in-android.html.

<sup>&</sup>lt;sup>8</sup> See ECF 1566-2 (Hall Rpt.) ¶ 106.

<sup>&</sup>lt;sup>9</sup> See, e.g., Mullen Decl. Ex. 2 (Swetland Depo. at 84:21-25).

Mullen Decl. Ex. 3 (Ghuloum Ex. 5020).

development, and noting in the service email that "Google is making available for inspection indevelopment source code implementing versions of Android using OpenJDK, which is licensed under the GNU General Public License, v.2 (GPLv2) with Classpath Exception." Oracle inspected that source code on November 25, 2015. Oracle then took the deposition of Anwar Ghuloum, Google's Rule 30(b)(6) designee regarding "[a]ll commercially acceptable, non-infringing substitutes to all or any of the 37 Java API packages used in Android." Ghuloum testified that Google's use of OpenJDK class libraries is a commercially acceptable, non-infringing alternative to its prior use of the Harmony class libraries. He testified that he "d[id]n't think [OEMs] would have a problem with" the OpenJDK-based class libraries, and that Google had "provided GPL code as part of the Android platform in the past." He also testified, "We deal with GPL code with OEMs all the time. There are parts of the Android platform that are GPL'd and we have GPL obligations as a result." Oracle concluded the deposition after less than four hours on the record. Oracle's claim that it would be prejudiced by the admission of evidence of what it calls "post-fact-discovery events" thus rings hollow.

### III. ARGUMENT

## A. OpenJDK is highly relevant to both fair use and damages.

*OpenJDK is relevant to fair use.* The Ninth Circuit has held that "fair use is appropriate where a 'reasonable copyright owner' would have consented to the use, i.e., where the 'custom or public policy' at the time would have defined the use as reasonable," and that this is an appropriate issue to bear in mind when balancing the fair use factors. *Wall Data, Inc. v. LA Cnty. Sherriff's Dep't,* 447 F.3d 769, 778 (9th Cir. 2006) (citation omitted). Thus, the jury is entitled to

Mullen Decl. Ex. 4 (11/12/15 Kamber email).

 $<sup>^{12}</sup>$  *Id.*, ¶ 2. Indeed, Oracle's representatives showed up nearly two-and-a-half hours late, and inspected source code for barely more than three hours. *See id.* 

<sup>&</sup>lt;sup>13</sup> *Id.*, Ex. 5 (Ghuloum Depo. at 8:23-9:14).

II 14 *Id.* at 26:20-27:13.

<sup>&</sup>lt;sup>15</sup> *Id.* at 57:20-58:2, 61:20-21.

<sup>&</sup>lt;sup>16</sup> *Id.* at 34:16-19.

<sup>&</sup>lt;sup>17</sup> See id., ¶ 3.

<sup>&</sup>lt;sup>18</sup> Mot. at 10.

consider evidence that Sun voluntarily *did* consent to use of the declarations/SSO. The jury is also entitled to consider that Sun made the express decision to license the OpenJDK *class libraries* (including all of the declarations/SSO at issue) under the less restrictive Classpath license, which is compelling evidence that it was reasonable for Google to use the declarations/SSO from the 37 Java SE API packages in Android.

OpenJDK is also relevant to the second fair use factor, the nature of the copyrighted work. 17 U.S.C. § 107(2). A work's *un*published status is "a critical element of its 'nature." *Harper & Row Publishers Inc. v. Nation Enters.*, 471 U.S. 539, 564 (1985). And open sourcing OpenJDK is the antithesis of keeping a work unpublished; Sun elected to publish not only Java SE in its object code form, but also *the source code* for OpenJDK, including the declarations/SSO for the 37 packages at issue. Considering this evidence would not, as Oracle claims, "eviscerate" opensource licenses, any more than it would "eviscerate" publishing to consider that quoting from a published work is more likely to be a fair use than quoting from an unpublished work. *See id.* at 564. Moreover, open sourcing of OpenJDK is consistent with its CEO's testimony that it was "trying to make open APIs and compete on implementations." Tr. at 1962:12-14, 2003:11-12 (Schwartz). Sun's decision to "publish," *i.e.*, make the source code for the OpenJDK class libraries available under the Classpath license, is important evidence that bears directly on the second factor of the fair use analysis.

OpenJDK is also relevant to the fourth fair use factor, the effect of Google's use on the potential market for or value of Java SE. 17 U.S.C. § 107(4). If Sun's own actions limited Java SE's market, Google's use cannot have caused that harm. Oracle executive Safra Catz testified at the previous trial, "It's pretty hard to compete with free." Tr. at 2322:12 (Catz). Oracle itself licenses OpenJDK (including all of the declarations/SSO at issue) for free. Contrary to Oracle's suggestions, Google has never advanced the argument that this evidence is relevant because the royalty-free nature of the OpenJDK license by itself entitled Google to use the declarations/SSO from the 37 Java SE API packages (separate and apart from OpenJDK). Instead, the relevance is the extent to which the potential market for or value of Java SE was limited by Sun's own licensing decisions, rather than harmed by Google's use. The fact that Sun (and now Oracle)

licenses the OpenJDK class libraries under the open source Classpath license is certainly relevant to that inquiry.

Indeed, for these reasons, evidence about the OpenJDK class libraries is highly relevant to fair use *regardless* of Google's use of them. That said, the strongest evidence that Google (or any other OpenJDK licensee) *could* have used the OpenJDK declarations/SSO and created a platform such as Android is the evidence that Google, relying largely on a single engineer, *did in fact* change its codebase in about six months from Harmony to OpenJDK-based class libraries for the 37 Java SE API packages at issue. <sup>19</sup> Indeed, using the OpenJDK class libraries in 2007 would have been substantially *easier* than the switch today, because the Android codebase was smaller and less complex at that time. *Id*.

*OpenJDK is relevant to damages.* Even if the jury declines to find fair use, OpenJDK is highly relevant to damages. First, OpenJDK is relevant to Oracle's claim for \$475 million in lost Java ME licensing profits. As discussed by Google's damages expert Dr. Leonard, Sun's supposed lost licensing profits were a result of factors other than Android's allegedly unfair use of the declarations/SSO from the 37 Java SE API packages. In the "but for" world, Dr. Leonard opines that Android still would have existed, and could have used the declarations/SSO—or even the complete implementations—from OpenJDK for the 37 Java SE API packages at issue. The existence of OpenJDK prior to the Android launch thus severely undercuts Oracle's claim that its failure to meet internal forecasts can be attributed solely to Google's allegedly unfair use of the declarations/SSO.

OpenJDK is also relevant to determining Google's profits attributable to its allegedly unfair use. One way to quantify those profits is to measure the costs Google avoided by its allegedly unfair use of the declarations/SSO.<sup>22</sup> As one way to measure these avoided costs, Dr. Leonard calculates what it would have cost Google to switch from the Harmony class libraries to

<sup>&</sup>lt;sup>19</sup> ECF 1563-7 (Leonard Rpt.) ¶ 176 (citing interview with Ghuloum).

 $<sup>\</sup>frac{20}{1}$  Id. ¶ 211.

<sup>&</sup>lt;sup>21</sup> Id.; see also ECF 1564-6 (Malackowski Rpt. ¶180) (applying a "but for" test).

<sup>&</sup>lt;sup>22</sup> ECF 1563-7 (Leonard Rpt.) ¶ 174 (discussing "bottom up" apportionment).

the OpenJDK class libraries, prior to the Android launch.<sup>23</sup> Dr. Leonard concludes that "[t]he incremental cost to Google of implementing the OpenJDK libraries"—and thus its avoided costs—"would have been about . . . \$85,000."<sup>24</sup> Evidence about OpenJDK therefore is relevant both to Oracle's claim of lost profits and to calculating Google's profits allegedly attributable to its allegedly unfair use of the declarations/SSO.

# B. The evidence does not show that Google was concerned about the Classpath license.

Throughout its motion, Oracle intentionally blurs the distinction between the GPL and Classpath licenses in an effort to exclude evidence about OpenJDK. Significantly, Oracle cites evidence, wholly out of context, to argue that in 2007, Google was unwilling to adopt class libraries that were licensed under the Classpath license. But a complete reading of the evidence shows no such thing. Instead, the record shows that Google well understood the differences between the GPL2 and Classpath licenses. To the extent that there is evidence that some Google employees had a different view of OpenJDK, Oracle is free to bring that evidence out on cross-examination. Oracle cannot, however, rely on that evidence (which, at most, amounts to misrepresenting one single email) to preclude all evidence relating to OpenJDK.

Oracle's motion is replete with evidence taken out of context, quoting snippets of emails and testimony without regard to whether the evidence relates to OpenJDK or to the open source version of Java ME, which is subject to the GPL2 license. For example, Oracle quotes Android engineer Brian Swetland saying that a Sun license "effectively prevents you from using it in most any embedded product unless the entire thing is GPL." But the "it" in that phrase refers to the open source version of Java ME (not OpenJDK), which Swetland notes is licensed under "GPL-only"—i.e. the GPL2 license, not the Classpath license. In the same email string, another Android engineer, Cédric Beust, notes that he "would be happy if we can just drop in their

*Id.* ¶¶ 175-78.

<sup>&</sup>lt;sup>24</sup> *Id.* ¶ 178.

<sup>&</sup>lt;sup>25</sup> See ECF 1563-14 (Beust email).

<sup>&</sup>lt;sup>26</sup> See also <a href="https://web.archive.org/web/20061201003425/http:/www.sun.com/software/opensource/java/faq.jsp">https://web.archive.org/web/20061201003425/http://www.sun.com/software/opensource/java/faq.jsp</a> ("Sun chose GPL v2 without the Classpath exception for the phone ME software"), Mullen Decl. Ex. 1.

libraries" but that he's not sure whether this would be compatible with Sun's licensing choices. *Id.* Beust's email responds to emails discussing the possibility that Java *ME* might be licensed only under the GPL2 license, and thus the context suggests that Beust's email is referring to the *GPL2* license for the open source version of Java ME, not the Classpath license. Likewise, Swetland's testimony that the "licensing" for "Sun's open source Java core libraries" was "inappropriate," is about Java *ME* and the *GPL2* license. Swetland had just explained that he was testifying about "the mobile—you know, the mobile—the smaller version of these libraries." And it was his understanding that the "Classpath license that clearly allows linking without issue" applied only to the "desktop and server product" while the "mobile" version was licensed "without such protection."

Oracle takes the same liberties in citing evidence that refers to the OpenJDK *virtual machine* (not at issue in this upcoming trial), not the OpenJDK class libraries. Oracle quotes Andy Rubin as saying that the "GPL license (Sun's license) doesn't work for us," but Rubin's statement is an explanation why Google would still need "skelmir." "Skelmir" is a company that the Android team talked with about acquiring a *virtual machine* and class libraries. I Unless Google was willing to accept the GPL2 license for the OpenJDK *virtual machine*, Google would still need "skelmir," as Rubin explained. An email exchange between Rubin and Android engineer Bob Lee cited by Oracle is more of the same. Rubin says, "we do not want carriers or OEMs to be required to go to Sun if they are customers of our platform," but this follows a prior email where he says "as far as GPL-ing the VM, everything that is linked with the VM would get infected," demonstrating that this concern was with the OpenJDK *virtual machine*, which was licensed under the GPL2 license.

Finally, Oracle makes much of an email exchange that, at best, shows that there might

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<sup>25</sup> Mullen Decl. Ex. 2 (Swetland Depo. at 139:3-8).

 $<sup>26 \</sup>int_{0.27}^{28} Id.$  at 140:2-3.

*Id.* at 142:24-143:7.

<sup>&</sup>lt;sup>30</sup> See id., Ex. 6 (TX 155).

*Id.*, Ex. 7 (McFadden Depo. at 81:8-12).

	have been different views among some Google employees about using OpenJDK. Oracle cites a
	2009 email exchange between Josh Bloch and another Google employee, Jesse Wilson, in which
	Wilson suggests considering the use of the OpenJDK class libraries in Android. 32 But by 2009,
	Android had already launched, and switching to OpenJDK class libraries from the already proven
	Harmony class libraries appeared to be wholly unnecessary, in light of Sun lauding the Android
	efforts for "strapp[ing] another set of rockets" on Java. 33 And in 2009, other companies, such as
	IBM, were still focusing their open source efforts on the Harmony class libraries rather than
	OpenJDK. 34 Google's apparent decision not to further discuss Wilson's OpenJDK proposal in
	2009 thus made ample sense, regardless of the license applicable to the OpenJDK class
	libraries. 35 And other than Bloch's supposition, Oracle points to no evidence that Wilson's
	suggestion was rejected due to licensing concerns.
	Thus, contrary to Oracle's claims, the record does not show that Google rejected
	OpenJDK because of licensing restrictions. To the extent that Oracle seeks to establish otherwise
	at trial, it is entitled to cross-examine Google witnesses, but it cannot preclude all evidence about
	OpenJDK.
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# C. Hall's opinion meets all the criteria required for expert testimony.

Oracle contends that Andrew Hall should not be permitted to testify regarding OpenJDK because his testimony is inadmissible contract interpretation and he lacks the required expertise to opine on the Classpath license. Oracle is mistaken on both points.

First, Oracle makes plain that it intends to attempt to confuse the jury by conflating the GPL2 license with the Classpath license. Hall is an expert on open source licensing, <sup>36</sup> and can

<sup>&</sup>lt;sup>32</sup> ECF 1563-18 (Bloch email).

Mullen Decl. Ex. 8 (Schwartz blog post, TX 2352).

<sup>&</sup>lt;sup>34</sup> It was not until the following year, 2010, that IBM moved its support from the Harmony class libraries to the OpenJDK project. *See http://www.sutor.com/c/2010/10/ibm-joins-the-openjdk-community/*.

By way of contrast, by 2015, when Google announced it would be adopting some OpenJDK-based class libraries for the "N" release of Android, the Android team was the only group working on the Harmony class libraries. Mullen Decl. Ex. 5 (Ghuloum Depo. at 158:11-15).

 $<sup>^{36}</sup>$  ECF 1566-2 (Hall Rpt.) ¶ 6.

provide the jury with important background about open source licensing and the differences between various open source licenses applicable to Android, including the Apache 2.0 license that is used for much of the platform, the GPL2 license that is used for the Linux kernel (and the license discussed in almost all of the evidence Oracle cites in support of its motion), the LGPL license (which applies to Webkit, which has shipped as part of Android from the beginning) and the Classpath license (which is the license applicable to the OpenJDK class libraries). 37

Second, Oracle can't diminish Hall's expertise by suggesting that he merely dabbles in Java as a hobby. Hall is not only a licensing expert, but a trained computer scientist and engineer with a specialized practice that focuses on, among other issues, advising clients on the incorporation of open-source software into commercial and closed-source products and services and other commercial dependencies upon open-source software. Hall's dual-field training provides him the background necessary to explain what "linking" means, and to explain how "linking" relates to the use of the OpenJDK class libraries. And his computer science training offers an ample basis to testify that the computer science definition of "linking" is consistent with the way the term is used in the Java Language Specification and the Java Virtual Machine Specification. Hall offers a *technical* opinion regarding the linking done by OEMs and developers, and how that is relevant to the Classpath license, not a *legal* opinion. And, therefore, his testimony is relevant and admissible.

### IV. CONCLUSION

Oracle's motion should be denied.

<sup>&</sup>lt;sup>37</sup> See id. ¶¶ 28-83.

<sup>&</sup>lt;sup>38</sup> *Id.* ¶¶ 6, 8.

 $<sup>^{39}</sup>$  See, e.g, id. ¶¶ 84-88, 92.

<sup>&</sup>lt;sup>40</sup> See id. ¶¶ 89-91.

See, e.g., id. ¶¶ 93-97, 119 (discussing "linking" in the context of Java programs, and in the context of Android in particular).

# Dated: April 6, 2016 KEKER & VAN NEST LLP By: /s/ Robert A. Van Nest ROBERT A. VAN NEST CHRISTA M. ANDERSON DANIEL PURCELL Attorneys for Defendant GOOGLE INC. OPPOSITION TO ORACLE'S MIL #1 Case No. 3:10-cv-03561 WHA

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